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A NEW ANT-LIKE THRIPS FROM FLORIDA. BY J. DOUGLAS HOOD.

The members of the genus Ædaleothrips look much like ants. and at least some of them occur in frequent association with species of ants to which they bear a close superficial resemblance, not only in size, form, and color, but also in behavior. Perhaps the thrips are actually mimics. Certainly the swollen head and abdomen, and the great reduction of the pterothorax, together with the elevation of the metanotum into a distinct humpcharacters possible only in wingless forms-give them a strikingly ant-like appearance. The demarcation between thorax and abdomen, so accentuated in the ants, is secured in the species of *Œdaleothrips* by the disposition of white markings in such a way as to reduce still further the apparent width of the pterothorax, and to make the abdomen appear pedicellate. At least two of the species—the only ones which the writer has seen alive-habitually curl the tip of the abdomen forward over the back when alarmed. This gives the abdomen a shorter and more rounded form, and hence more ant-like, when seen from above. The gait of these two thrips as they scuttle hurriedly to safety is far more like that of the ants with which they are frequently found than that of related thrips belonging to the same family. The interesting species described below is the only one in the genus which looks like a red ant; all of the others are dark colored.

Ædaleothrips bradleyi, sp. nov.

Female (apterous).—Length about 2.8 mm. (nearly fully distended, 3.3 mm.). Color pale yellowish brown or testaceous, the head darker and more brownish anteriorly, the abdomen paler but with a partial transverse brown band behind the subbasal chitinous line on each of terga III-VIII, and the sides of segments VIII and IX and the tip of the tube darkened with gray-brown; stigmatal areas of mesothorax chalky white, as is also the

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extreme posterior portion of pterothorax, the first abdominal segment, and a spot on each side of the second segment; femora (especially the middle and hind pairs) lightly shaded with brown on their morphological dorsal surfaces, fore tibiæ similarly but more darkly shaded, their tarsi nearly yellow, middle and hind tibiæ and tarsi darker, brown in color, the tibiæ becoming somewhat blackish apically; antennæ with segments I and II nearly clear white, III and IV yellow, the distal five-sixths of III paler than the basal portion, the extreme tip of IV shaded with brown, V dark brown in about basal two-fifths, its distal portion and all of VI–VIII nearly black; prothoracic setæ brownish or yellowish, the other body setæ nearly or quite colorless.

Head a trifle broader across eyes than across cheeks, about 1.43 times as long as greatest width, not at all produced in front of eyes, so broadly rounded anteriorly that the part in front of posterior margins of eyes forms an almost perfect semicircle; cheeks full, narrowed to just in front of basal collar, where the width of head is only 0.6 that across eyes, the collar itself slightly wider; vertex not at all produced or overhanging, curved evenly downward to antennæ, its surface minutely rugose; frontal costa shallowly concave and very broad (78μ) ; dorsum of head decidedly elevated between and behind eyes and faintly reticulated, its extreme base polygonally subreticulate; all setæ nearly white, and all somewhat dilated at tip, the vertical pair longest (72μ) , situated distinctly in advance of front margin of eyes and 145μ apart; interocellar pair about 50μ long, 137μ apart. and about opposite middle of eyes; postoculars about $43\mu \log$, 245μ apart, arising about 50μ behind eyes, and about comparable with a pair arising laterad and cephalad to them; dorso-cephalic pair about equal to postoculars, 157μ apart, and 180μ behind eyes. Eyes not at all protruding, very slightly concave in front of the larger posterior facets, and very small in size, their dorsal length (113μ) about one-fifth that of head, their dorsal width and interval respectively 70 and 228μ ; ventrally they are about 0.38 as long as head (204μ) and much narrower, and the posterior prolongation contains facets whose diameter is fully twice that of the dorsal ones. Ocelli totally wanting. Antennæ thoroughly typical of the genus, formed almost exactly as in the genotype (see Hood, Bull. Brooklyn Ent. Soc., 11:64-65, Pl. II, fig. 3. 1916); segments V and VI with the usual lobe-like ventral prolongations; all major antennæ setæ pale and inconspicuous, nearly all of those on segments I-III knobbed, all on IV-VIII pointed; sense cones short and rather stout, situated as follows on inner (and outer) surfaces of segments: III 1 (1), IV 1 (1), V 1 (1^{+1}), VI 1 (0^{+1}), VII 1 dorsal. Mouth-cone short and semicircularly rounded at tip, its length beyond dorsal margin of head about 164μ or 0.31 the length of head.

Prothorax along median line of pronotum about 0.56 as long as head and (inclusive of coxæ) about 1.4 times as wide as long; notum elevated and very convex, its anterior margin slightly thickened, its sides and anterior portion with distinct longitudinal sculpture, its posterior fourth curving abruptly downward and with distinct transverse anastomosing lines; midlateral setæ minute and pointed, all others slightly dilated apically and yellowish or brownish in color, the antero-marginals 30μ , anteroangulars 35μ , epimerals and coxals about 40μ , postero-marginals 46μ . Legs normal to the genus, fore tarsi toothed as in the genotype (see Hood, *loc. cit.*, fig. 1). *Pterothorax* much narrower than prothorax and head, the greatest mesothoracic width only 0.88 that across eyes; metanotum much elevated above mesonotum, forming a rounded hump; mesonotum almost indistinguishably sculptured with transverse anastomosing lines, metanotum more closely striate with conspicuous concentric lines; metanotum with two pairs of blunt setæ about $26\mu \log$ forming a transverse row across middle, the inner pair only 45μ apart, the outer pair about 88μ laterad from them.

Abdomen broad and heavy, widened from base to segment V, where it is broadest, and then rounded to tube; wing-retaining setæ absent, terminal setæ pointed and about 137μ in length, all other major dorsal and lateral setæ distinctly dilated at apex, the single pair on tergum I about 28μ , the inner (and outer) pairs on succeeding terga measuring as follows in μ : II 59 (43), III 64 (50), IV 73 (52), V 80 (50), VI 89 (97), VII 130 (167), VIII 80 (150), IX 137 (174), the ventro-lateral pair on IX 125 μ . Tube short and stout, about 0.41 as long as head, 1.84 times as long as greatest subbasal width, and 2.1 times as wide near base as at apex, with slight apical constriction, its sides nearly straight.

Measurements of female (holotype), in mm. : Length about 2.81 (nearly fully distended, 3.34); head, median dorsal length 0.528, width across eyes 0.368, greatest width across cheeks 0.363, least width near base 0.221, width across basal collar 0.227; prothorax, median length of pronotum 0.294, greatest width (inclusive of coxx) 0.414; mesothorax, greatest width 0.322; abdomen, greatest width 0.578; tube (segment X, only) length 0.217, greatest subbasal width 0.118, least apical width 0.056.

| Antennal segments: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------------|-------|----------|---------|-----|------|------|----|----|
| Length (μ) | 83* | 87 | 177 | 125 | 117† | 103† | 69 | 63 |
| Width (μ) | 60‡ | 42 | 43 | 46 | 43 | 37 | 32 | 20 |
| Total length | of ar | ntenna | a 0.824 | mm. | | | | |

* Ventral length.

† Dorsal length (exclusive of ventral process).

‡ Basal width.

FLORIDA: St. Petersburg, February 9, 1937, Dr. J. Chester Bradley, 1 9, "from low vegetation in open piney woods."

The pale testaceous color, relieved only by the somewhat darkened head, shaded legs, gray-tipped tube, and the chalky white markings on thorax and abdomen, give this species an appearance very different from that of the other members of its genus. Structurally it is thoroughly typical of the group which includes *hookeri* and *jacksoni*, all of whose species have the metanotum conspicuously elevated to form a hump which is concentrically striated. In this group only *hookeri* and *bradleyi* have the tube pale; that of all the others is black or dark brown. And the antennæ of *bradleyi*, with the first and second segments nearly white, the third and fourth largely yellow, and the others nearly black, are even more distinctive. The species is named after Dr. J. Chester Bradley, Professor of Entomology and Curator of Invertebrate Zoology at Cornell University, who collected it.